

ICF Consulting / Laboratory Data Consultants

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SFUND RECORDS CTR 88072817

MEMORANDUM

TO:

Nancy Riveland-Har

Remedial Project Manager Cleanup Section 4, SFD-7-4

THROUGH:

Rose Fong

ESAT Project Officer

Quality Assurance (QA) Office, PMD-3

FROM:

Doug Lindelof 🔏

Data Review and QA Document Review Task Manager Environmental Services Assistance Team (ESAT)

ESAT Contract No.: 68-W-01-028

Task Order No.: B01

Technical Direction No.: B0105128 Amendment 2

DATE:

July 17, 2002

SUBJECT:

Review of Analytical Data, Tier 3

Attached are comments resulting from ESAT Region 9 review of the following analytical data:

SITE: SITE ACCOUNT NO.: Omega Chem OU-2

CERCLIS ID NO.:

09 BC LA02 CAD042245001

CASE NO.:

30499

SDG NO.:

Y0GP9

LABORATORY:

Clayton Group Services (CLAYTN)

ANALYSIS:

Volatiles

SAMPLES:

20 Water Samples

COLLECTION DATE:

May 28, 29, 30, and 31, 2002

REVIEWER:

Denise McCaffrey, ESAT/LDC

The comments and qualifications presented in this report have been reviewed by the EPA Task Order Project Officer (TOPO) for the ESAT Contract, whose signature appears above.

If there are any questions, please contact Rose Fong (QA Program/EPA) at (415) 972-3812.

Attachment

Cecilia Moore, CLP PO USEPA Region 5 Steve Remaley, CLP PO USEPA Region 9

ESAT File

CLP PO: [] FYI

[X] Attention

[] Action

SAMPLING ISSUES: [X] Yes

[]No

Data Validation Report

Case No.:

30499

SDG No.: Y0GP9

Site:

Omega Chem OU-2

Laboratory:

Clayton Group Services (CLAYTN) Denise McCaffrey, ESAT/LDC

Reviewer: Date:

July 17, 2002

I. <u>Case Summary</u>

SAMPLE INFORMATION:

Samples: Y0GP9, Y0GQ0, Y0GQ1, Y0GQ2, Y0GQ3, Y0GQ4,

Y0GQ5, Y0GQ6, Y0GQ7, Y0GQ8, Y0GQ9, Y0GR0, Y0GR1, Y0GR2, Y0GR3, Y0GR4, Y0GR5, Y0GR6,

Y0GR7, and Y0GR8

Concentration and Matrix: Low Level Water

Analysis: Volatiles

SOW: OLC03.2

Collection Date: May 28, 29, 30, and 31, 2002

Sample Receipt Date: May 29, 30, 31, and June 1, 2002

Extraction Date: Not Applicable

Analysis Date: June 3, 4, 5, 6, and 7, 2002

FIELD OC:

Trip Blanks (TB): Y0GP9, Y0GQ6, Y0GQ9, and Y0GR5

Field Blanks (FB): Not Provided

Equipment Blanks (EB): Y0GR4

Background Samples (BG): Not Provided

Field Duplicates (D1): Y0GO1 and Y0GO2

Field Duplicates (D2): Y0GR8 and Y0GR9 (see Additional Comments)

METHOD BLANKS AND ASSOCIATED SAMPLES:

VBLKLY: Y0GP9, Y0GQ0, Y0GQ1, Y0GQ4, and Y0GQ5

VBLKLZ: Y0GQ5DL, Y0GQ6, Y0GQ7, Y0GQ8, Y0GQ8DL, Y0GQ9,

and Y0GR0

VBLKLA: Y0GR1, Y0GR2, Y0GR2MS, Y0GR2MSD, Y0GR3,

Y0GR4, Y0GR5, and Y0GR8

VBLKLB: Y0GR6, Y0GR7, and Y0GR8DL

VBLKLC: Y0GQ2, Y0GQ3, and VHBLKLA

TABLES:

1A: Analytical Results with Qualifications

1B: Data Qualifier Definitions for Organic Data Review

MS- Matrix Spike, MSD - Matrix Spike Duplicate, DL - Dilution

CLP PO ACTION:

None.

CLP PO ATTENTION:

- 1) Detected results for several analytes are qualified as nondetected and estimated (U,J) due to contamination in the storage blank, trip blank, and equipment blank.
- 2) Detected results and quantitation limits for several analytes are qualified as estimated (J) due to calibration problems.

SAMPLING ISSUES:

Detected results for bromoform are qualified as nondetected and estimated (U,J) due to contamination in trip blank Y0GQ9 and equipment blank Y0GR4.

ADDITIONAL COMMENTS:

Results for sample Y0GR9, the field duplicate of sample Y0GR8, are included in Case No. 30499, SDG No. Y0GR9.

Tentatively identified compounds (TICs) detected in the samples are reported on Form 1Fs and are attached to this report.

Standard preparation logs are missing in the data package and cannot be evaluated. This information was requested from the laboratory but has not been received to date. Data are not qualified in this report due to missing standard preparation logs. Refer to the attached telephone record log for details.

This report was prepared in accordance with the following documents:

- ESAT Region 9 Standard Operating Procedure 901, Guidelines for Data Review of Contract Laboratory Program Analytical Services (CLPAS) Volatile and Semivolatile Data Packages;
- USEPA Contract Laboratory Program Statement of Work for Low Concentration Organics Analysis, OLC03.2, December 2000; and
- USEPA Contract Laboratory Program National Functional Guidelines for Low Concentration Organic Data Review, June 2001

II. Validation Summary

HOLDING TIMES	YES	
GC/MS TUNE/GC PERFORMANCE	YES	
INITIAL CALIBRATIONS	YES	
CONTINUING CALIBRATIONS	NO	В
LABORATORY BLANKS	NO	A
FIELD BLANKS	NO	Α
DEUTERATED MONITORING COMPOUNDS (DMCs)	YES	
MATRIX SPIKE/DUPLICATES	YES	
INTERNAL STANDARDS	YES	. •
COMPOUND IDENTIFICATION	YES	
COMPOUND QUANTITATION	NO	C, E, F, G, H
SYSTEM PERFORMANCE	YES	
FIELD DUPLICATE SAMPLE ANALYSIS	NO	D

Acceptable/Comment

III. Validity and Comments

- A. The following results are qualified as nondetected and estimated due to storage blank, trip blank, and equipment blank contaminations, and are flagged "U,J" in Table 1A.
 - Acetone in samples Y0GP9, Y0GQ8, Y0GQ9, Y0GR2, Y0GR2MS, Y0GR2MSD, and Y0GR5
 - Chloroform in samples Y0GQ4 and Y0GR8
 - Bromoform in sample Y0GR0

Acetone and chloroform were found in storage blank VHBLKLA at concentrations of 9 μ g/L and 0.5 μ g/L, respectively. Bromoform was found in trip blank Y0GQ9 and equipment blank Y0GR4 at concentrations of 0.5 μ g/L and 0.5 μ g/L, respectively. Results for the samples listed above are considered nondetected and estimated (U,J) and the quantitation limits have been increased according to the blank qualification rules presented below.

No positive results are reported unless the concentration of the compound in the sample exceeds 10 times the amount in any associated blank for the common laboratory contaminants or 5 times the amount for other compounds. If the sample result is greater than the CRQL, the quantitation limit is raised to the sample result (U,J). If the sample result is less than the CRQL, the result is reported as nondetected (U,J) at the CRQL.

A storage blank is laboratory reagent water stored in a vial in the same area as the field samples. The storage blank is used to determine the level of contamination introduced by the laboratory during sample storage prior to analysis.

A trip blank is laboratory reagent water which is shipped from the laboratory to the field with the empty sample containers and back to the laboratory with the filled sample containers. A trip blank is intended to detect contaminants introduced during the transport of the samples to the laboratory, although any laboratory introduced contamination will also be present. Contaminants that are found in the trip blank which are absent in the laboratory blank could be indicative of a problem in transportation, storage, the bottle preparation procedure, or other indeterminate error.

An equipment blank is clean water that has been collected as a sample using decontaminated sampling equipment. The intent of an equipment blank is to monitor for contamination introduced by the sampling activity, although any laboratory introduced contamination will also be present.

- B. Detected results and quantitation limits for the following analytes are qualified as estimated due to large percent differences (%Ds) in the continuing calibrations, and are flagged "J" in Table 1A.
 - Bromomethane in samples Y0GP9, Y0GQ0, Y0GQ1, Y0GQ4, Y0GQ5, and method blank VBLKLY
 - 2-Butanone in samples Y0GR1, Y0GR2, Y0GR2MS, Y0GR2MSD, Y0GR3, Y0GR4, Y0GR5, Y0GR8, and VBLKLA

A percent difference of -31.9% was observed for bromomethane in the continuing calibration performed on June 3, 2002. A percent difference of +32.6% was observed for 2-butanone in the continuing calibration performed on June 5, 2002. These values exceed the $\pm 30.0\%$ validation criterion.

The continuing calibration checks the instrument performance daily and produces the relative response factors (RRFs) for target analytes that are used for quantitation.

- C. Detected results for the following analytes are qualified as estimated due to high analyte concentration, and are flagged "J" in Table 1A.
 - Methyl tert-butyl ether and trichloroethene in sample Y0GR8

Concentrations of methyl tert-butyl ether and trichloroethene in the undiluted analysis of the sample were 32 μ g/L and 26 μ g/L, respectively. These values exceed the 25 μ g/L calibration range. The laboratory reanalyzed the sample at a 100-fold dilution, thus diluting out these analytes.

Results reported in Table 1A for these analytes are from the undiluted sample. These values are considered to be qualitatively acceptable but quantitatively questionable and should be considered as the minimum concentrations at which these analytes are present in the sample.

D. In the analysis of the field duplicate pairs, the following outliers were obtained for the analytes listed below.

	Y0GQ1 (D1)	Y0GQ2 (D1)	
<u>Analyte</u>	Conc. µg/L	Conc. ug/L	<u>RPD</u>
1,1-Dichloroethene	25U	21	$\overline{N/A}$
Carbon tetrachloride	25U	31	N/A
Chloroform	25U	180	N/A
	Y0GR8 (D2)	Y0GR9 (D2)	
A 1 .			DDD
<u>Analyte</u>	Conc. μg/L	Conc. μ g/L	<u>RPD</u>
Dichlorodifluoromethane	3	1 0 U	$\overline{N/A}$
Methyl tert-butyl ether	32	22	37%
1,1-Dichloroethane	0.6	1 0 U	N/A
1,1,1-Trichloroethane	2	10U	N/A
Benzene	0.9	10U	N/A

A relative percent differences (RPD) value is not calculated and is presented above as "N/A" when an analyte is detected in a sample but is nondetected (U) at the CRQL in the associated field duplicate sample. The effect the on data quality is not known.

It should be noted that sample Y0GR9 was analyzed at a 20-fold dilution, whereas sample Y0GR8 was analyzed undiluted. The lower concentrations detected in sample Y0GR8 were most likely diluted out in sample Y0GR9.

It should be noted that sample Y0GQ1 was analyzed at a 50-fold dilution, whereas sample Y0GQ2 was analyzed at a 20-fold dilution. The lower concentrations detected in sample Y0GQ2 were most likely diluted out in sample Y0GQ1.

A relative percent difference (RPD) of 37% was obtained for methyl tert-butyl ether in the analysis of field duplicate pair Y0GR8 and Y0GR9. The value obtained for methyl tert-butyl ether in sample Y0GR8 exceeded the calibration range and is considered to be quantitatively questionable. The effect on data quality is not known.

The analysis of field duplicate samples is a measure of both field and analytical precision. The imprecision in the results of the analysis of the field duplicate pair may be due to the sample matrix or poor sampling or analysis techniques.

- E. Sample Y0GQ5 was analyzed at a 10-fold dilution due to the high levels of trichlorofluoromethane and 1,1,2-trichloro-1,2,2-trifluoroethane. Results for trichlorofluoromethane and 1,1,2-trichloro-1,2,2-trifluoroethane are reported from the diluted sample in Table 1A; results for all other analytes are reported from the undiluted sample.
- F. Sample Y0GQ8 was analyzed at a 20-fold dilution due to the high levels of tetrachloroethene. Results for tetrachloroethene are reported from the diluted sample in Table 1A; results for all other analytes are reported from the undiluted sample.
- G. Sample Y0GR8 was analyzed at a 100-fold dilution due to the high levels of trichlorofluoromethane, 1,1-dichloroethene, 1,1,2-trichloro-1,2,2-trifluoroethane, and tetrachloroethene. Results for trichlorofluoromethane, 1,1-dichloroethene, 1,1,2-trichloro-1,2,2-trifluoroethane, and tetrachloroethene are reported from the diluted sample in Table 1A; results for all other analytes are reported from the undiluted sample.
- H. Samples Y0GQ0, Y0GQ1, Y0GQ2, Y0GQ3, Y0GQ4, Y0GQ7, Y0GR0, Y0GR1, Y0GR2, Y0GR2MS, Y0GR2MSD, Y0GR3, Y0GR6, and Y0GR7 were analyzed at dilutions due to the high levels of target analytes. The CRQLs listed for these samples in Table 1A have been multiplied by the dilution factors.

Site: OMEGA RECOVERY SERV.

Lab: CLAYTON GROUP SERVICES INC.

Reviewer: DENISE MCCAFFREY, ESAT/LDC

SDG No.: Y0GP9

Date: 07/17/2002

Case No.: 30499

QUALIFIED DATA

Concentration in ug/L

Analysis Type: Low Level Water Samples

For Volatiles

			_																		
Station Location :	GW202-MW	01A-200	5	GW202-MW	01A-005	5	GW202-MW	01B-008	0	GW202-MW	01B-108	0	GW202-MW	05A-004	9	GW202-MW	02A-005	5	GW202-OW	07-0081	
Sample ID :	Y0GP9		тв	Y0GQ0			Y0GQ1		D1	Y0GQ2		D1	Y0GQ3			Y0GQ4			Y0GQ5		
Collection Date :	05/28/2002			05/28/2002			05/28/2002			05/28/2002			05/28/2002			05/28/2002			05/29/2002		
Dilution Factor :	1.0			50.0			50.0			20.0			100.0			500.0			1.0		_
Volatile Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Dichlorodifluoromethane	0.5U			25U		Н	25U		Н	10U		Н	50บ		Н	250U		Н	0.5U		
Chloromethane	* 0.5U			25U		Н	25U	374.	Ή	100	900	H	50U		Н	250⊍		Н	< 0.5U		8
Vinyl Chloride	0.5U			25U		Н	25U		н	10U		н	50U 50U	l	н	250U		н	0.5U		
Bromomethane 64	0.5U	ŽJ.	В	25∪	رزخ	ВН	25∪	J	ВН	2 10U		¥Ή.			Н	250Ü	J.	BH	€0.5U	4 J	Bay
Chloroethane	0.5U		****	25U		Н	25U		Н	10U		Н	50U	Alleron or a	Н	250U		Н	0.5U	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Trichlorofluoromethane	0.5U-	2/2/2		₂⊊ 25U	and the same	H	25U		H	100		H	380	12:32	A Hair	680		"н.	46.		E.
1,1-Dichloroethene	0.5U			40	SI ~5000000000000000000000000000000000000	Н	25U		DH	21		DH	1100		H	2200		H	1		
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50		\$ 100	25U		Ĩ.H.	25U		PH.	::10U	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	H	1100	40.00	— Ha	1900		H	62		·E
Acetone	8U	J	A	250U		H	250U	2-20000000 W-4	Н	100U		Н	500U	/ 17 1 70.	H	2500U		H	5U		
Carbon Disulfide	0.5U	50%	122	***25U		Ĥ	25U		¥ H	10U	Samuel 1	H	50∪	-	Н	250U	200. 19 ES	* <u>' H</u>	0.50		140 S.
Methyl Acetate	0.5U			25U		Н	25U		H	10U		Н	50U		Н	250U		Н	0.5U	300 0 000 017 2000	****
Methylene Chloride	0.5U		** ***********************************	25U	All (s. 1947) Marie Villa		:25U	**** *********************************	: »H»	10U		<u>∴ H</u>	50∪∕	St. Sec.	∴ H.:::	250U_		Н	0.5Ü	atheritan lane i	
trans-1,2-Dichloroethene	0.5U		andere	25U		Н	25U	***************************************	H	10U	. پېسسىنېر در ي	Н	50U	****	H.,	250U		Н	0.5U	************	***************************************
Methyl tert-Butyl Ether	0.5U		<u> </u>	25 U		Н	√ <u>√</u> 25U		H	100		H	50U		L H	250U	<u> </u>	H	. 0:5Ù		
1,1-Dichloroethane	0.5∪		water angelesses	25U	***************************************	Н	25U		Н	10U		Н.	50U		Н	250U		Н	0.5U		
cis-1,2-Dichloroethene	0.5U		. 25.	250		_H T	25U		H	100		H	50∪		E H	250U ₄	ann an in	H	∂ 0:5U		
2-Butanone	5U		www.moscorres.neme-	250U		Н	250U		Н	100U		Н	500U		Н	2500U		Н	5∪	<u></u>	
Bromochloromethane	₹0.5Ü	74.00		25U		TH.	25U		H	10∪	ं भ	H			H	ໍ 250ປ		Н	0.5U		
Chloroform	0.5U			25U		Н	25U		DH	180		DH	1200		Н	860U	j	AH	0.5U		
1.1.1-Trichloroethane	 0.5 U		1.0	§ 25U	\$	Н	2 5U		Ή	10∪	7.77	Н	50U		н	2500		H <u>C</u>	0.5∪), '):	
Cyclohexane	0.5U			25U		H	25U	******	Н	10U		Н	50U		Н	250U		Н	0.5U		
Carbon Tetrachloride	0.5U		io II	25U	2	H	25U		DH *	31		DH	180	X.	H.	250Ú	W	H	0.5U		*********
Benzene	0.5U		on . Assemble	25U		H	25U		Н	100	J	Н	50บ		H	250U		Н	0.5U		
1,2-Dichloroethane	0.5U			25∪		H	25∪		H	10⊍∴		Н	∮ 50U	Š.	" Н	ີ 250ບ ຼື	Lean C	H	0.50		87 7. 88. 286e - 2
Trichloroethene	0.5U			440		H	210	g at-	Н.,,	200		Н	830	w	H	830		Н	2	************	
Methylcyclonexane	0.5U		المنتشقة تساو	25∪	i dia ana	H	25 U		i Hi	100	Zilli.	H	<u>5</u> 0U	X	H.	250U	- 14.	H	0.5∪		
1,2-Dichloropropane	0.5U			25U		H	25U		H	100		Н	50U		Н	250U		н	0.5∪		
Bromodichloromethane.	0.5U	Mills with		25U	u, wasti	H	25U	3 1	"H	10U		Н	50U		Н	250U	&a.i	H	∭ 0.5∪		12
cis-1,3-Dichloropropene	0.5U	gom		25U		Н	25U		, Н	10U	332: A1000	H	50U		. н .,,	250U		Н,	0.5U	* em 1 % 100 mm	
4-Methyl-2-pentanone				2500		H	250U	150 mm	Н	ંક . જે 100U	\$50 mm	Н	5000		H,	25000	2000	Н			
Toluene	0.5U			25U	l I	Н	25U	L	Н	10U		Н	50U		Н	250U		Н	0.5U		L
trans-1:3-Dichloropropene	0.5∪			. 25U	6	<u>.</u> H	25U	الله المدادة السا	. н,			H	50∪		H	2500		≱н	<u>0.</u> 50		
1,1,2-Trichloroethane	0.5∪			25U		Н	25U		Н	10U		Н	50U		Н	250U	l	Н	0.5U		
Tetrachloroethene	0.5U	34		45		H	29	1300	*H	27_		Н	1400		H	* × 3800		Н	77		
2-Hexanone	5∪			250U		Н	250U		Н	100U		Н	500U		Н	2500U		Н	5∪		
Dibromochloromethane	0.5U	1		25U	100	H	25U) H	10U		Н	້50ປ		H	№ 250U		Н	0.5U		
1,2-Dibromoethane	0.5U			25U		Н	25U		Н	10U		Н	50U		Н	250U		н	0.5U	1	1

Site: OMEGA RECOVERY SERV.

Lab: CLAYTON GROUP SERVICES INC.

Reviewer: DENISE MCCAFFREY, ESAT/LDC

Date: 07/17/2002

QUALIFIED DATA Concentration in ug/L Analysis Type: Low Level Water Samples

For Volatiles

Station Location :	GW202-MW0	1A-200	5	GW202-MW	01A-005	5	GW202-MW	01B-008)	GW202-MW0	1B-108	0	GW202-MW0	05A-004	9 ,	GW202-MW0	02A-005	5	GW202-OW0	7-0081	\Box
Sample ID :	Y0GP9		тв	Y0GQ0			Y0GQ1		D1	Y0GQ2		D1	Y0GQ3			Y0GQ4			Y0GQ5		ı
Collection Date :	05/28/2002			05/28/2002			05/28/2002			05/28/2002			05/28/2002			05/28/2002			05/29/2002		l
Dilution Factor ;	1.0			50.0			50.0			20.0			100.0			500.0			1.0		
Volatile Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result		Com	Result	Vai	Com	Result	Val	Com	Result	Val	Com
Chlorobenzene	0.5U			25U		Н	25U		Н	10U		Н	50U		н	250U		Н	0.5∪		
Ethylbenzene	્રે ૂૂ 0.5U			7≫25U	- 1865 - 1865 - 1865	H	25U		∠ H ±	10U		KH.	∌ 50U:		Н	250U		· H	0.5U	No. of the second	
Xylenes (total)	0.5U			25U		Н	25U		н	10U		Н	50U		н	250U		н	0.5U		
Styrene	0.50			25 U		H	*** 25U		H	10U		H	50U	***	H	250U	¥5.	Н	0.50		A STATE OF THE STA
Bromoform	0.5U		:	25U		н	25U		н.	10U		н	50U		н	250U		н	0.5∪		
Isopropylbenzene	0.5U		7 . 3	↓ 25U	100	H	25U	. 2	H	100	8.46.2	Н	50U		Η.	250U		Н.	0:5U		سقمدات.
1,1,2,2-Tetrachloroethane	0.5U			25U		н	25U		н	10U		н	50U		н	250U		н	0.5U		
1,3-Dichlorobenzene	0.5U			25U	200	H	25U	ar I	Н	100	4	Э.Н.	50U	and the second	Н	250U		<u>5,45</u>	• 0.5U		·2. 4
1,4-Dichlorobenzene	0.5U			25U		Н	25∪		н	10U		н	50U		Н	250U		Н	0.5U		
1,2-Dichlorobenzene	0.5U	11,4. 		>>>> 25U-		H			Н	100		H	≥50U	en Salar	H	250U		_ મં∑	0.5U		
1,2-Dibromo-3-chloropropane	0.5U	wer: *******	1.0000000 #10000	25U	Mary 20 1 100000000	Н.	25U		Н	10U		Н	50∪		Н	250U		Н	0.5U		ngrogramn
1.2.4-Trichlorobenzene	· 0.5U	2000			1112	∵H.‱	25 <u>U</u>	ريان دراند مستداد مص	H ?	10U		%:H:}		S some	Ĥ		36X	· H &	0.5U		W.
1,2,3-Trichlorobenzene	0.5U			25U		Н	25U		Н	10U		Н	50U		Н	250U		Н	0.5U	L	

Val - Validity. Refer to Data Qualifiers in Table 1B.

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation Limit, N/A - Not Applicable, NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

ANALYTICAL RESULTS Page 3 of 10

Site: OMEGA RECOVERY SERV.

Lab: CLAYTON GROUP SERVICES INC.

SDG No.: Y0GP9

Reviewer: DENISE MCCAFFREY, ESAT/LDC

Date: 07/17/2002

Case No.: 30499

QUALIFIED DATA

Tier 3 Table 1A

Analysis Type: Low Level Water Samples

Concentration in ug/L For Volatiles

Station Location :	GW202-OW0	7-2006		GW202-OW	1A-0080		GW202-OW ⁻	1B-0116		GW202-OW8	3-2007		GW202-OW	3-0075		GW202-OW	4A-0073		GW202-OW4	B-0125	
Sample ID :	Y0GQ6		TB	Y0GQ7			Y0GQ8			Y0GQ9		ТВ	Y0GR0			Y0GR1			Y0GR2		ŀ
Collection Date :	05/29/2002			05/29/2002			05/29/2002			05/30/2002			05/30/2002			05/30/2002			05/30/2002		ŀ
Dilution Factor :	1.0			5000.0			1.0			1.0	,		2000.0		_	2.5			2.5		-
Volatile Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Dichlorodifluoromethane	0.5U	u telak		2500U	[42A1889011	H	0.5U	312 198000	80. 1 30	0.5U	. 	,,	1000U		H	1U 1Ü		H	1U	क्ष्म् स्ट्रा	H
Chloromethane	0.5U	استغلفت		2500U	- 2 - 2	H.5.				0.5U		No.	1000Ü		H		273 11 30	∴H <u>%</u>	<u>2,513,54131U</u> .		H
Vinyl Chloride	0.5U	distriction and the state of th	in well.	2500U	19997777	H	2	100000000000000000000000000000000000000	er er er erre	0.5U			1000U	1 1 255	H	10		H	1U	200977 JS	H
Bromomethane	0.5U	1		2500U		Н	0.50			<u>0.5U</u>	للثنف	ــــــــــــــــــــــــــــــــــــــ	1000U	WINE.	»H.	10	250 C	Н.	្នែ្	<u> </u>	H
Chloroethane	0.5U 0.5U	TO - TO	ः :स्क्रम्	2500U	75.7	H H	0.5U	in in the second	~	0.5U		,	1000U		H	1U 3		H	1U - 2	zádo .	H
Trichlorofluoromethane	-1-0 1000		ः :सङ्घाः माः	2500U	355.73	south shirt of	**********************************	اء منست		0.50 ب در		<u> </u>	10000		Het	. production - tyronomicalis	7.3.3	*H		Marie.	<u>SH.</u>
1,1-Dichloroethene	0.5U			2500U	-2000 X	H	4	(1.800) (1.800)	116	0.5∪	382. ::	Sec.	2400		H	15		Н	5 17	F 135	H ~~-∵.:::≋:
1,1:2-Trichloro-1,2,2-Irifluoroethane	0.50	&	200	2500U		***********	**************************************			3.5∪		يجهزانهر	2700	BULLY	ĕ° H _Σ Σ	8.		н	2000		<u> </u>
Acetone Carbon Disulfide	5U € 0.5U	Z: T9	: Single-filter or	25000U	75	H His	6U	, <u>J</u>	A	8U 0.5U;	J	A	10000U	C 17 1879	H	13U	7. 4 23	H H	180U	. J ≅2 ~31	AH
Carbon Disulfide	· · · · · · · · · · · · · · · · · · ·			2500U			0.5U	a in	2	^~~ ~ · · · · · · · · · · · · · · · · ·			1000Ú	1124	<u> </u>		insediction .		10	Marie C	. H ✓
Methylene Chloride	0.5U		***	2500U 2500U	7500°	H	0.5U		7. S.	0.5U 0.5U	. ·		1000U		H H	1U 1U	77.77	H SH ² c	1U . ្លំ្រាំប	10.000 PM	H Sah T
trans-1.2-Dichloroethene	0.5U	des		2500U		±±±∏±±± H	0.5U	Ja 4 v. 11 y 13v	EE E	0.5U	S 2, 4, Security 22 and 1990.		1000U	in the second	, <u></u> H	سالنس برغاندا 1U	alitaria.	н	1U	مثلة كالدغب	<u>abar⊡</u> H
Methyl tert-Butyl Ether	0.5U			2500U	Z.	ੂ H	0.5∪	740 E	.	0.50	1 14 14	ā.	1000U		. H	ىلى ئىدادىن 10₃	77777	Has	10 210	- 705	H
1.1-Dichloroethane	0.5U	مستد سنت		2500U	:: <u>11</u>	H	1		112-511	0.5U	الثناة التنت	نستنفذ ماهاد	1000U	1	H H	1U	4.3	<u>.жп.</u>	1U		<u>** 11.3.</u> H
cis-1,2-Dichloroethene	0.50	. KS.A.C.A.C.A.C.	,	25000	7,770	July a sublisher	0.9	2.00	3	0.5U			1000U		H.	1U,			10		36. H
2-Butanone	5U	ائبت الانا	الله الله	25000U	listalian a	<u>. H</u>	5U		والمناسبة	5U		72. 73 6 72.	10000U	. #2x	H	13U	2.34	ВН	13U	Jindii 192	BH
Bromochloromethane	0.5U	Arriva Modelina	3000	2500U		ŞŽH°	0.5U		04/48		70.00		10000		н	130 1U	. Z.B.,	.H. 2	10	~ "	H &
Chloroform	0.5U	30 L	المستششدا	25000	Sim 2	H	0.5U	LEEP'S.	200 5.7800	0.5U			1000U	** (*********************************	H	28	المائلات المنطقة	aidiləsi H	1U		H
1-1-1-Trichloroethane	0.5U		7	3700		ੌΗ		Ze.	173	0.5U	78. 344		1000U		н	20 21U,) He	10	, TW	**************************************
Cyclohexane	0.5∪	8k	المالكها أنا	2500U	-000000 CV 5	H	0.5U	alternation of the second	Laftytti	0.5U	an in the state of	01.18822°°	1000U	22.30 L	H	1U	eni.	H	1U	Likks	H
Carbon Tetrachloride	0.50	286		2500ປົ	S	THE.	0.5U	X C. 4	-	0.5U	50/2 · · ·		1000U	F 45.7	н	SAL AU		Жн	∯ 1U.	7970	€н
Benzene	0.5U	نائنستانات ا	St 20 40	2500U	المنطقة بأساس	H	2		الشيشار الشيشا	0.5U	ins	نقير السنقف	1000U	2.1.2	H	1U		H	1U	20.73.22	H
1.2 Dichloroethane	0.5∪			25000		t°H∭		*	TS.c.	0.5U	Francisco	***	* 1000U		μĤ	يا1وي پريس	i Deci	ŽH	, 1U	Male.	₹H.S.
Trichloroethene	0.5U	A		2500U	382	H	6	24 25 Eliza 20	Marie - Section	0.5U			1100	. : <u></u>	Н	33	2_55	H	2	14 / 16 <u>1</u>	H
Methylcyclohexane	0.5U	برسبير.		25000		Н	0.50			0.5U	3.3		1000	Jacob (T)	ΨĤ.	ar ii ay 1ii	2 80a	Тн	- 	- 1000 Jac	H(W
1,2-Dichloropropane	0.5U	St. r. room.		2500U	ا (شنمستگا	H	0.5U	٠٠.٠٠٠		0.5U		3/12	1000U	פינוב באנו" "	Н	1U	I	H	1U	:	H H
Bromodichloromethane	0.5U	क्षाप्रहरू		2500U		Ä	0.5U	5 mm - 1 mm	, 4.	0.5U	हरा हार्य	ź. · ·	1,0000	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	्ॅमिंक.	. o _v 1∪	2	Н. ∞		ş · · · ·	H
cis-1,3-Dichloropropene	0.5U	. Yearn's	C	2500U	A	H	0.5U			0.5U	Mires Sulline	¥200	1000U	£		10		H	1U		H
4-Methyl-2-pentanone	5U		ا مستند عقب بهمر	250000	asedonies i	H	5U ₂	ZZ S	,	5U	#*: ****	\$3: \$\$	100000		H	13U	, et . * #	н	13U		н
[Toluene	0.5U		Notabatan estable	2500U	*****	H	0.5U	(de		0.5U		w	1000U		. سنتكانيس. H	10	· .	!' H	1U	Million C.L.	H
trans-1:3-Dichloropropene	0.5U	M . T.					0.5U	F	5 7	0.5U			1000U		H	32 10	* * **	Н	10	A Sec. sec.	
1,1,2-Trichloroethane	0.5U	Acces to	(Manual)	2500U	2.55	H	0.5U		ne ne della collega	0.5U	it is not state on man	bendur wateri	1000U	»	H	1U		H	1U	سكاناه الشارات	H
Tetrachloroethene	0.5U	7. . 3	8. A. 3	\$5,59000 #	3.3	H.	190		\mathcal{E}_{F}	0.50	-W.		14000	17 F		₹ 20	Magaille Co. Page 1 €	H≋	28	# T	ъН
2-Hexanone	5U		" indial.	25000U		H	5U			5U			10000U		н.	13U		/1.'?^ H	13U		H
Dibromochloromethane	0.5U	·		2500U	. J. 1994.	¥ H ≪	0.50	*** * * * * * * * * * * * * * * * * *	2000 - 2000 2000 - 2000 2000 - 2000		Sec. 3	a nagari Manadan da			H.»	100 100	2000 - 100 1 ASA	н	10-	Same	
1,2-Dibromoethane	0.5U	a compatibility	86. (1.388.20.31)	2500U	- supplier.	Н	0.5U	e-exist billedinais	and the	0.5U	w Periodical Control	minima th	1000U	. Michaelli 2. acht Ca	H	1U	: S. And College State of Stat	H	1U	: : : : : : : : : : : : : : : : :	H

Case No.: 30499

SDG No.: Y0GP9

Tier 3 Table 1A

Site: OMEGA RECOVERY SERV.

Lab: CLAYTON GROUP SERVICES INC.

Reviewer: DENISE MCCAFFREY, ESAT/LDC Date: 07/17/2002

QUALIFIED DATA

Analysis Type: Low Level Water Samples

Concentration in ug/L

For Volatiles

Station Location :	GW202-OW	07-2006		GW202-OW	1A-0080		GW202-OW	1B-0116		GW202-OW8	3-2007		GW202-OW8	3-0075		GW202-OW4	4A-0073		GW202-OW4	B-0125	
Sample ID :	Y0GQ6		ТВ	Y0GQ7			Y0GQ8			Y0GQ9		тв	Y0GR0			Y0GR1			Y0GR2		
Collection Date :	05/29/2002			05/29/2002			05/29/2002			05/30/2002			05/30/2002			05/30/2002			05/30/2002		,
Dilution Factor :	1.0			5000.0			1.0			1.0			2000.0			2.5			2.5		
Volatile Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Chlorobenzene	0.5U			2500∪		Н	0.5U			0.5U			1000U		н	10		Н	10		н
-Ethylbenzene	0.5U	2000		2500U		g:H∴	0.50		Calendary.	0.5U				33-4-60	Н	1U		"j H ∛	∛. 1∪		FHE
Xylenes (total)	0.5U			2500U		н	0.5U			0.5U			1000U		Н	1U		Н	1U		н
Styrene	0.5Ü			2500U	. <u> </u>	H	0.5∪	\$0 NO	ş. <u>30</u>	0.5U		in interest	1000Ü		H	, 1U		∑н ∑	i 1Ù		JH.
Bromoform	0.5U			2500U	İ	н	0.5U			0.5			1200U	J	AH	10		н	1U		Н
lsópropylbenzene	0.5U	E annual or	**	2500U		H.	0.5U			0.50			1000U		H	, 1U		₹H :		22.	H
1,1,2,2-Tetrachloroethane	0.5U	ļ		2500∪		н	Ó. 5 U			0.5U			1000U		н	1U		н	10		Н
1,3-Dichlorobenzene	0.50			2500U		H	0.5U			0.50		12.0	1000U	1.11	HS	1U		H	10	20 L	ZH.
1,4-Dichlorobenzene	0.5∪			2500U		Н	0.5U			0.5U			1000U		Н	1U_		Н	10		н
1,2-Dichlorobenzene	≪ 0.5U	ii. E		2500U	ign'	⊮ H	0.5U	Sankia.	200 - 1	, 0.5U	onergie.	-42	1000U	1500 m	H	10		· H		Marie Contract	H
1,2-Dibromo-3-chloropropane	0.5U			2500U		Н	0.5U		***	0.5U			1000U		Н	1U		Н	1U		Н
1,2,4-Trichlorobenzene	0.50	3	9. 490, 2. 277	2500U	40 10 A	H	ະ ເ 🍌 0.5ປ.	eyayine	9942y	್ಷ _ಾ . ್ವಿ.0.5U	A STATE OF		1000U		¥.H.	10	42994	. H.	10		Н
1,2,3-Trichlorobenzene	0.5U			2500U		н	0.5U			0.5U			1000U		н	10		н	10	L i	Н

Val - Validity. Refer to Data Qualifiers in Table 1B.

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation Llmit, N/A - Not Applicable, NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

ANALYTICAL RESULTS

Case No.: 30499

Site: OMEGA RECOVERY SERV.

.ab: CLAYTON GROUP SERVICES INC.

SDG No.: Y0GP9

Reviewer: DENISE MCCAFFREY, ESAT/LDC

Date: 07/17/2002

QUALIFIED DATA
Concentration in ug/L

Tier 3 Table 1A

Analysis Type: Low Level Water Samples

For Volatiles

Page 5 of 10

GW202-OW5-0048 GW202-OW5-4001 GW202-OW6-0048 GW202-OW4B-0125 Station Location GW202-OW3-2008 GW202-OW3-0080 GW202-OW2-0078 Sample ID Y0GR3 Y0GR4 EΒ Y0GR5 TB YOGR6 Y0GR7 Y0GR8 D2 Y0GR2MS Collection Date 05/30/2002 05/30/2002 05/31/2002 05/31/2002 05/31/2002 05/31/2002 05/30/2002 Dilution Factor 20.0 1.0 1.0 200.0 100.0 1.0 2.5 Volatile Compound Result Val Com Dichlorodifluoromethane 10U Н 0.5U 0.5U 100U н 50U н D 1U Н H. Chloromethane H н 50U ₩ × 1U 100 0.5U H. 0.5U 0.5U 100U 100 Vinyl Chloride 10U 0.50 0.5U 100L 50U н 0.50 н н н 1U Bromomethane 100 0.50 H ≰0.5U ું 0.5Ü - 100U H 50U H, . 1U dià. Chloroethane 10U 0.5U 0.5U 100U Н 50U н 0.5U 1U н Trichlorofluoromethane 0.5Ú 380 sH. 32 H **№ 0.5U** 330 H. 390 H ି G 2 20 1,1-Dichloroethene 10U Н 0.50 0.50 1500 н Н 240 G 22 Н 550 0.5U 0.50 780 17 1,1,2-Trichloro-1,2,2-trifluoroethane 160 , Н 530 ∍HÌ•G√ CH. 1800 н Acetone 100U н 5U 8U 1000U Н 500U н 5U 180U AΗ Α 0.50 Н 1Ů ੌH. 100 0.5U ..100Ú ùH* 50U ∗0.5U 0.5U Н Methyl Acetate 10U 0.50 100U н 50U 0.50 1U н Methylene Chlonde 10U 0.5Ú .∞100U 50U H: ₩H× .0.5U *** - 1Ú 34 m - 100 Z trans-1,2-Dichloroethene 10U 0.50 0.5U 100U 50U 0.5U 10U 0.50 32 Methyl tert Butyl Ether 0.50 100U · H 50U J CD .10 н 1,1-Dichloroethane 0.5U 0.50 100U 50U 0.6 D н 10U н 10 cis-1,2-Dichloroethene 20 . 0.5Ü 0.5U ≸ 100U 500 ŰΗ, 0.5U Н H 10 2-Butanone 100U ВН 5U .1 В 5U В 1000U Н 500U Н 5U J 13U BH J В J н Bromochloromethane 10U 0.5U 0.5U ∕ 100Ü Н .50Ú H. 0.5U €н∂ 1Ú Chloroform 10U Н 0.5U 0.5U 100U Н 50U н 5U J 1U н Α 10U H. 500 1,1,1-Trichloroethane .20.5U 100Ú à. D H 2 10U 0.5U 0.5U 100U Н н Cyclohexane Н Н 50U 0.5U 10 🌁 ູ 10ບ 0.50 Carbon Tetrachloride H 0.5U 1000 н 50U н 0.50 1υ H) Si. 10U 0.5U 0.5U 100U Н Benzene Н н 50U Н 0.9 Đ 15 1,2-Dichloroethane 10U 100U 50U .0.5⊍ 0.5U H žΗ 0.5U Н 10 Trichloroethene 390 н 0.5U 0.5U 180 Н 180 н 26 J С 15 н 50U Н 10 Methylcyclohexane 10U H ີ 0.5ປ ์ 0.5U 1000 H 🦅 0.5U Н: 1,2-Dichloropropane 10U 0.5U 0.5U 100U Н 50U 0.5U н н 1U Ĥ 100U Ĥ **0.5**Ú ້ຳປ Bromodichloromethane ...10U 0.5Ü 0.5Ú 50U H∜ Ø. ŜΗ, cis-1,3-Dichloropropene 10U 0.5U 100U 50U н 0.5U Н 0.5U 111 1000 5U 1000U 4-Methyl-2-pentanone 5U 500⊍ Hª: **≪**ሯ 13U H \mathbf{H} Н 5U 10U 0.5U 0.5U 1000 0.50 н Toluene 50L 14 10U trans-1,3-Dichloropropene 0.5U H 50Ú H. 0.5U 1U H. * н. · 0.5U 1000 100 Belleville. 1,1,2-Trichloroethane 10U 0.5U 0.5U 100U Н н 0.50 10 Н 50U 29 Tetrachloroethene H 0.5Ü 0.50 1000 Η. 1700 "H 150 **3 150** ¥09 G 2-Hexanone 100U Н 5U 5U 1000U 500U Н 13U н 5l .⊮. 0.5U Dibromochloromethane 100 н 0.5U ેં 100Ú Η, 50U 0.5U -1U H 0.5U 100L 1.2-Dibromoethane 100 0.5U

Case No.: 30499

SDG No.: Y0GP9

Tier 3 Table 1A

Site: OMEGA RECOVERY SERV.

Lab: CLAYTON GROUP SERVICES INC.

Reviewer: DENISE MCCAFFREY, ESAT/LDC

Date: 07/17/2002

QUALIFIED DATA Concentration in ug/L Analysis Type: Low Level Water Samples

For Volatiles

Station Location : Sample ID : Collection Date : Dilution Factor :	GW202-OW5 Y0GR3 05/30/2002 20.0	5-0048		GW202-OW9 Y0GR4 05/30/2002 1.0	5-4001	€В	GW202-OW3 Y0GR5 05/31/2002 1.0	3-2008	ТВ	GW202-OW3 Y0GR6 05/31/2002 200.0	3-0080		GW202-OW2 Y0GR7 05/31/2002 100.0	-0078		GW202-OW6 Y0GR8 05/31/2002 1.0	3-0048	D2	GW202-OW4 Y0GR2MS 05/30/2002 2.5	B-0125	
Volatile Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Vai	Com	Result	Val	Com	Result	_Val	Com	Result	Val	Com
Chlorobenzene	10U		Н	0.5U			0.5U			100U		Н	50U		Н	0.5U			13		Н
Ethylbenzene	*10U		Η	0.50	18 a	ر د ند معمولات	%≪: 0.5U			100U		.H.	50U		»₃H ∜	0.5U			10		H
Xylenes (total)	10U		н	0.5U			0.5∪			100U		н	50U		Н	0.5U			10		Н
Styrene	100		₹H.	0.5U		and the second				100∪	344	LH.	50U		жН	0.5U			1U	35	H
Bromoform	10U		н	0.5	i I		0.5∪			100U		Н	50U		н	0.5∪			10		Н
Isopropylbenzene	100		∂.H.	0.5Ù			0.5U			100U		H	.50Ů		₹H	0.5U		ثفينست	210		Н
1,1,2,2-Tetrachloroethane	10U		н	0.5∪		Secretary of	0.5U			100U		Н	50U		Н	0.5∪			1U		H
1;3-Dichloropenzene	100	200	Н	0.50			*** 0.5U			100U		∭H/	50U		Н	0.50	×320	AMEN'S	1U,		H ₂ %
1,4-Dichloropenzene	10U	1	н	0.5ህ	1	1	0.5∪	<u>'</u>		100U	1	н	50∪		н	0.5U			10		н
1.2-Dichlorobenzene	10Ù		Н	0.5U		2:30.48	0.5U				777 	H	50U		H	.0.5U		التصليب	1U		Н
1,2-Dibromo-3-chloropropane	10U		н	0.5U			0.5U	/Marigar / sc		100U		н	50U		н	0.5∪			10		н
1,2,4-Trichlorobenzene	100	- martan - 108	"H."	0.5U	No.		0.50		7.000 F.J.	100U		H	50U		- H.	0.5U			1U	La consta	E.H.
1,2,3-Trichlorobenzene	10U		н	0.5U			0.5U			100U		н	50U		н	0.5U			10		н

Val - Validity. Refer to Data Qualifiers in Table 1B.

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation Llmit, N/A - Not Applicable, NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

Site: OMEGA RECOVERY SERV.

Lab: CLAYTON GROUP SERVICES INC.

SDG No.: Y0GP9

Reviewer: DENISE MCCAFFREY, ESAT/LDC

Date: 07/17/2002

Case No.: 30499

QUALIFIED DATA

Analysis Type: Low Level Water Samples

Concentration in ug/L For Volatiles

Station Location :	GW202-OW	4B-0125		Method Blan	k		Method Blan	k		Method Blan	k		Method Blan	k '		Method Blan	k		Storage Blan	ık	\Box
Sample ID :	Y0GR2MSD			VBLKLA			VBLKLB			VBLKLC			VBLKLY			VBLKLZ			VHBLKLA		- 1
Collection Date :	05/30/2002																				- 1
Dilution Factor :	2.5			1.0			1.0			1.0			1.0			1.0			1.0		
Volatile Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Dichlorodifluoromethane	. 1U		Н	0.5U			0.5U			0.5U			0.5U			0.5U			0.5U		
Chloromethane	. 1U		H	0.5Ú			. 0.5U		49.2	0.50		2-13	0.50			0.5U		12	0.5U	7	
Vinyl Chloride	10		н	0.5U			0.5U	L		0.5U			0.5U			. 0.5U			0.5U		
Bromomethane	10,	22	H	<u>0.5U</u>	: :			322	826	0.50	1.9-125	2 100 V 2 2 1	0.50	ં હોય 🔯	В	.≫ 0.5U			., 0.5U	2016	
Chloroethane	10		Н	0.5U		Markon .	0.5U			0.5∪	1		0.5U			0.5U			0.5U		lerrouse a say
Trichlorofluoromethane	2		" н 🖫	" 0.5U.		Ĺ	0.5U	337	Salari.		3 52		0.50	Lands_		ू0.5U	ZE.		0.5U	<u> </u>	
1,1-Dichloroethene	20	~	H	0.5U		*******	0.5∪			0.5U			0.5U	2000 J. 2000		0.5U			0.5U		100000000000000000000000000000000000000
1,1,2-Trichloro-1,2,2-trifluoroethane	15	W	% H 🛣	0.50	اف د کیا	E	0.50	W		0.5U		*	0.50		\$	9.5U			0.5∪	Second .	2.00
Acetone	160U	J	AH	5U		پردار جاست	5∪		****	5U	d program in todays.	Fr. Schwedister	5U	~~~~~		5U	. در مدېميد.	· · · · · · · · · ·	9	در بدستس	
Carbon Disulfide	1U	C)	H	0.5U	* 1 A		0.5∪	2 2	edi. S		*		ું 0.5U		.r 30	∮ %0.5U	655X	¥.:: <u>L</u> 1	0.5U ₂	Nii an	
Methyl Acetate	10		, -n	0.5U		7	0.5U	4:0		0.5U			0.5U			0.5U		,	0.5U		
Methylene Chloride	10	· lamini.	H	0.5U	المقطعة		0.5U	e succession	#24		3		0.5U	in is		0.5U	*******	The second second	0.5∪	<u> 13277</u> ,	en indirec
trans-1,2-Dichloroethene	10		H	0.5U	ulas Zali I -	nitro com	0.5U	~		0.5U		نائد ساب سابوات.	0.5∪	**************************************	and recorded	0.5U	*****	7000000000	0.5U	نوميد ۽ ترسمت	11 × 11 10 10 10 10 10 10 10 10 10 10 10 10
Methyl tert-Butyl Ether	1U	ĿŴĸŠ	ЖH	0.5U	-20	الاست	0.5U	ففد	للشيئة السالية	0.5U			∜ 0.5∪		كالتعلقب	0.5U			0.5Ü	3 6 2	
1,1-Dichloroethane	1U	1000	Н ,,,,,	0.5U	ringgeren v. r.	a consistent	0.5U			0.5U			0.5U	, .,	And Secure	0.5U	Lanconic .	700000	0.5U		·*************************************
cis-1,2-Dichloroethène	. 1⊍	E.	∴ <u>H</u> Ž	0.5U	1	ii.	0.50	a- 3300	<u> </u>	0.5U	4	<u> </u>	0.50	1	9 3	0.5U		نكلت		المنتقدين الدريد	20.00
2-Butanone	13U	J	BH	5U_	J	В	5U	7362	- Salahan	5U	·» dine	Z / neg g y	5U			5U	jan v zvi ma an midi.	. 4	5U	in a segretaria	76.50
Bromochloromethane	10		ૂ Η 🧎	<u> </u>			0.5ป	.22.		0.5U	and are	A Property . Service .	້ 0.5ບູ້	à. Ja	i Sazadi	0.5U	SA		0.5U		Sim and
Chloroform	1U		H	0.5U		***************************************	0.5U		,	0.5U		78v7v.	0.5U	a, a segge		0.5U	· ·		0.5		
1,1,1-Trichloroethane	<u>1</u> U	àsair.	Н	0.5U	I . A		0.5U		iř. Z	0:50			0.50	. 2.		0.5U		330	🤵 0.5∪	S.A.	
Cyclohexane	1U	Tanas Marie Land	H	0.5U	Section 1988.	***************************************	0.5∪			0.5U			0.5U	tr vilase oni r	57 47 V 19 93	0.5U			0.5U		
Carbon Tetrachloride	10		HE				0.50			0:5∪		San of				0.5U	\$1 s		0.50	a	
Benzene	14		H	0,5U	5 Y	****	0.5∪		,	0.5U		Section Sec	0.5U	~ ~ ~ ~ ~ ~		0.5U		and a makery	0.5U		general contra
1,2-Dichloroethane	10	ilas de constantes de	Ĥ	0.5∪	<u>.</u>	*	0.5U	:		0.5U	Mi		0.5Ü		····	0.50		شـــــــــــــــــــــــــــــــــــــ	24.2.20.50		·
Trichloroethene	14	[F] :	H	0.5U	,	- Total	0.5U	en we	1778	0.5U	X77" "	750 C	0.5U	225,000	3. 1000	0.5U	i eggen		0.5U		ر د د سو
Methylcyclohexane	10	***************************************	∴ H≀	0.50	الأدائد شائر	<u>Žinia</u>	. 0.5 <u>U</u>			<u>0.5</u> U		on immercan	0.5U		Z 2	0.5U		Sandane a	0.50	مند فيكتب	
1,2-Dichloropropane	10		H	0.5U		vyjie	0.5U	September 1		0.5U	v		0.5U	2	80 W. 1798	0.5U	- Accordance	r go	0.5U	#70 m/m	we v
Bromodichloromethane	10		H	҈ 0.5∪	2	,	0.5U	i de	j	0.50	se. W	in T		1. C	The state of the s	0.5U			0.5U	ē	;
cis-1,3-Dichloropropene	10		H	0.5U	D0000000		0.5U	- jogney-		0.5U		,	0.5U	Reks of	5	0.5U			0.5∪		
4-Methyl-2-pentanone	· ¥	:	H*	5U	St		ેંુ "ે 5∪ૂ		854 3	5U	i 🕍 ,	: 🚵	.5U ⁽			50					
Toluene	13	· wasye	Н.,	0.5U		•	0.5U			0.5U	785°.	, and the little	0.5U	managape:	a checkane.	0.5U	. <u> </u>	SSS SECTION STATES	0.5U	30.200.2	
trans-1,3-Dichloropropene	10		H	0.50			0.5U	(<u>a</u> :	a o alsk	0.5∪		en Shari	0.50			0.5∪	- 12 m	HW.	∛ 0.5U	PAT.	
1,1,2-Trichloroethane	1U	375%	H n www.	0.5U	17.780780		0.5U	South uses	gar, kagagar	0.5U	ger e reger e p		0.5U	gr	See: *	0.5U	· · · · · · · · · · · · · · · · · · ·	F-250	0.5U		\$2.500,000 o
Tetrachloroethene **	× 194 ₹ 27%			0.50			0.50			0.50		55. 	0.5Ù	E.marei.	To District	0.5U	فنسته		0.5U	Millian h	100
2-Hexanone	13U	80 . 495	H	5U	w	ngregorion .	5U	. 52	- MAY	5U		02:	5U		405000000	5U	18870 7 11 11	chessessore.	5U		l
Dibromochloromethane	10	19.00 W	H	0.5U		Ŵ.		ma Zi	i de			23	0.5U	2		0.5U			0.50		2/15/84
1,2-Dibromoethane	10	l	H	0.5U	L		0.5U	<u> </u>	L	0.5U	I		0.5∪			0.5U			0.5U	L	

Case No.: 30499

SDG No.: Y0GP9

Tier 3 Table 1A

Site: OMEGA RECOVERY SERV.

Lab : CLAYTON GROUP SERVICES INC.

Reviewer: DENISE MCCAFFREY, ESAT/LDC

Date: 07/17/2002

QUALIFIED DATA
Concentration in ug/L

Analysis Type: Low Level Water Samples

For Volatiles

Station Location :	GW202-OW4	4B-0125		Method Blan	k		Method Blan	<u> </u>		Method Blank			Method Blank	,		Method Blan	k		Storage Blan	k	
Sample ID :				VBLKLA			VBLKLB	•		VBLKLC	•		VBLKLY	,		VBLKLZ	.,		VHBLKLA		
Collection Date :	05/30/2002																				
Dilution Factor :	2.5			1.0			1.0			1.0			1.0			1.0			1.0		
Volatile Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Vai	Com	Result	Val	Com
Chlorobenzene	13		Н	0.5U			0.5U			0.5U			0.5U			0.5U			0.5U		
Ethylbenzene			""H"	0.50			0.5U		7907 (38-12)			ž.	0.5U		100	0.5U	NATION OF	ZONES.	0.5Ü	kula aktifa.	1
Xylenes (total)	10		Н	0.5Ų			0.5U			0.5U			0.5∪	~ ~~~~~		0.5U			0.5U		
Styrene	¥ - 1U		PH (0.5U			0.50	(2)		. ≉ 0.5U		. 3	0.5U			0.5U	2	77 779 a ka a a a	0.5U		
Bromoform	10		н	0.5U	I		0.5U			0.5∪			0.5∪			0.5∪			0.5U		
Isopropylbenzene	1 <u>U</u> _			0.50		<i>A</i> _	0.5U			0:5U			0.50	100		0.5U		4	0.5U		
1,1,2,2-Tetrachloroethane	1U		н	0.5U	I		0.5U			0.5∪			0.5∪			0.5∪	!		0.5U		l.
1,3-Dichlorobenzene	10		H	0.5U	1 3 S	200	0.5U			0.5U			∌ ့ 0.5∪		22.0	્રેક્ ં 0.5U		2	0.5U		
1,4-Dichlorobenzene	10		н,	0.5U			0.5U			0.5∪			0.5∪			0.5U			0.5∪		
1,2-Dichlorobenzene	<u>* 10</u>	Section 1	<u>۶</u> H	0.5U	N. Z	Site of the same of	* 0.5U	الانوم المقادمات ما	80	0.5U		اگان ساست	0.5U	7.5		0.5U	3-1	35.2	-≪ 0.5U	*	S. 15
1,2-Dibromo-3-chloropropane	1U		Н	0.5U			0.5U			0.5U			0.5∪			0.5U			0.5U		i
1.2.4-Trichlorobenzene	10	The second	, н	0.50	78	2	0.5U	30007		0.5Ú	2 3		0:5U	22	a canadad	0.5U	760		0.5U ₂	1	
1,2,3-Trichlorobenzene	10		н	· 0.5U			0.5U			0.5U			0.5U			0.5U			0.5∪		i

Val - Validity. Refer to Data Qualifiers in Table 1B.

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation Llmit, N/A - Not Applicable, NA - Not Analyzed

ANALYTICAL RESULTS Page 9 of 10
Case No.: 30499 SDG No.: Y0GP9 Tier 3 Table 1A

Site: OMEGA RECOVERY SERV.

Lab: CLAYTON GROUP SERVICES INC.
Reviewer: DENISE MCCAFFREY, ESAT/LDC

Date: 07/17/2002

QUALIFIED DATA

Concentration in ug/L

Analysis Type: Low Level Water Samples

For Volatiles

										1									T		—
Station Location :	l												l			Į.					
Sample ID :	CRQL																				
Collection Date :													i			,					l
Dilution Factor :			1 -	_ :				T	T			<u> </u>					T				
Volatile Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Dichlorodifluoromethane	0.5	877,7 3 07	कर क्राप्ट	7 5 F. W. W.					ar au	****		:	management of the					\$75.7F		الأحتمانة	
Chloromethane	0.5	de						W.L.			***	5 m		1882	MAGAZA,	ekidat. Tod	nd II	Lia.	Same of the		2 1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
Vinyl Chloride	0.5 0.5	TOTAL STATE	573		3 57	···.			377		75000 C C C	71797-886		X898	با - جارسي		ল হেল			8 5 5 5	3338
Bromomethane	water from the best of the talk of the first				38	. 282		À.	سد اشد	2167 1:11				-2496				كأثناء		اعتناقة	06
Chloroethane Trichlorofluoromethane	0.5 0.5					· · · - - 3	HOLL	· • ₇₀	::	and the second	M	intinia v		. adhaba	787 ; 300)						مالىشتان د
1.1-Dichloroethene	0.5	. Alamani	Oin Sa.	i			K. LLA	. M 25		أنمس بسمس					<u></u>	Commonwealthing .	231. 2		2	120	. <u>"Lewica</u> .
*1,1,2-Trichloro-1,2,2-trifluoroethane			, a		1			## 74 v , ds/8	52.55		82	2 000								C-21	7 S.
Acetone	5	0- A.			المتسينة	1.49 <u>m</u>			L-450 14.1		سنست	Main T			: alleged		Carso	's Sim	i i i i i i i i i i i i i i i i i i i		100
Carbon Disulfide	0.5	1 (K.)			a di si di san				ZW , 22			was a			. 77.75	200 CO. 3500	**************************************	30.54v	The second of th	ST	250 0.
Methyl Acetate	0.5						***************************************				A 2	MANA C. 424									***
Methylene Chloride	0.5	å 32 0.:	S		الاستادات br>المستادات الاستادات	Significant		2	&t = =		6.300				*	23.	S		3	306	2.2
trans-1,2-Dichloroethene	0.5			· V tapapatapa-g-m an a			and the second s		w		FRO/WHERE										
Methyl tert-Butyl Ether	0.5		Similar I						Tink				- 1			18	\$	39/12			. Assaul
1,1-Dichloroethane	0.5	See Are Are	All a define	**	· imatina		4.4	88° 78 88	2000 - 200 0	w.,			** *** /5/*********************						- veliklik - im - immen	1000000 ·	* 1500040000
cis-1,2-Dichloroethene	0.5				11.20%		S. M. Z					77. J.			ZZ.	755		<u> </u>	25.7	<u> </u>	307
2-Butanone	5	\$*********	grgg	a in a symplement	. Trigonomico de la constanta d		agaga ang g a			****	÷	were report of	And the same of the same					· ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~			gggrager gg
Bromochloromethane	0.5	l W	21				3.7				į.	.S 		eri i	Z'n.	52.25.		Euk	Likeli on C	Section of	لشالا
Chloroform	0.5		* * * * *	2/05/2017	U GG			- ;		538463645	dente de la composition della	~~			- A-		e Di	2017 T			2372
1,1,1-Trichloroethane	mark and transfer the same		2.22	GARGAMATU .	All Philips	- Main	السشيدات المالية	in deal	MAL N	ka itekii	المُسَاءُ	Same.	Hair A.	200000		1200227 (18002)	2.2.2.			التسائد	than such
Cyclohexane Carbon Tetrachloride	0.5	\$1.75 \$1.75 \$1.55				.24655		****			2 · 🐺	32/200		7,5	. S.A.	The second		age.	in the second second)कोहर
None , a service of , a minimum man and a contract of	0.5 0.5		l.PB	SALLIANSSA:		: 38			ئىدا د سىگ					بالأد المطلب	_32A			Rail.			
Benzene 1,2-Dichloroethane	0.5		124		- 3	9 7	E: - 384 - 77	g - 55	~~~.			····			- T			5 ·-			
Trichloroethene	0.5		2 2 3	1.5	12 3	E.	Kr 1844	<u>े प्रा</u>	š:		72M. 4			M.,	B.A.	·	8.30	La in	Seine.		
Methylcyclohexane	0.5		المعاتب سمك	Service Control of the Control of th	Bac. DA	-	مرة يستوي بيد. د د	م میں از رکا ک		-St. Assistance					233	W. TEWS	.~	. مثر د کم .			1
1,2-Dichloropropane	0.5	ش	. ,	1250	.~		المُد الله ا	, kitá .		landa e e e e e e e e e e e e e	a ·	Long Time	enti etak	er er	Eq. at 1		A 1. A 1	ئ _{ىسى} ،	15 mai (1961 1961)	(M2)(1)	35
Bromodichloromethane	0.5		138.	and	\$10 mg	an ingi	West . 5		1.78		\$ 10 m			gor ac	N TOTAL	Section of the section of			1. STAN	(a)	* ***
cis-1,3-Dichloropropene	0.5		Acres essentium	a		A SERVICE A SERVICE SERVICE		- Comerc			Mariani, adding	atimatika ka	State mendra ver a source	im					i. ha' (i.e. 2.24	· '	1
4-Methyl-2-pentanone	5	EN	JŽn	: Àåa	- 2868°	มใช	a mar									init of a statement	¥.				
Toluene	0.5																				
trans-1,3-Dichloropropene 🔆	0.5	i					بالمنبسد المسا					™					5			A.	
1,1,2-Trichloroethane	0.5	*			در جينهجيد		*** * 2750************************************		امددا	colong con any control			207102-00000 10710-101000	; ; ; ; ; ; ;	20040077773	l	~		1.01	~ggg/rgg; ~~.	
Tetrachloroethene	0.5	ł Z		500 1			Šata (er:			27		The same	La Million	Z		×W	The C
2-Hexanone	5		**200 * 4300*** 00	Elifornia de l'amondifici del 1000		*(95)(10*** -1****	n jaja (1909) ki na <mark>kee</mark> ngga ki linna l		 ,	allen sætt i sermindskrivensker	vicino inggene		attragement of the second		internation or	4 may common someographical and		y ye (= wak y t	THE COMMON TO SER.		
Dibromochloromethane	2 0.5	Z.	117		î.			.45.				8				12.					1.1
1,2-Dibromoethane	0.5																<u> </u>				<u> </u>

Case No.: 30499

SDG No.: Y0GP9

Site: OMEGA RECOVERY SERV. Lab : CLAYTON GROUP SERVICES INC.

Reviewer: DENISE MCCAFFREY, ESAT/LDC

Date: 07/17/2002

QUALIFIED DATA Concentration in ug/L

Analysis Type: Low Level Water Samples

For Volatiles

Station Location :																					
Sample ID :	CRQL															1					
Collection Date :										ł						i					
Dilution Factor :																					
Volatile Compound	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com	Result	Val	Com
Chlorobenzene	0.5																				
Ethylbenzene	0.5						27047		- 35		a little	2.5	an in Sugarani							Zii.	
Xylenes (total)	0.5									,											
Styrene	0.5					in year.							2004			200	2600				- 53
Bromoform	0.5									No. of Contract 100		- congruence	and an array of a second of the				.			l	i
Isopropylbenzene	0.5	<u>L.A.</u>		X 3		a consistent													in the second		
1,1,2,2-Tetrachloroethane	0.5						i		l												ł
1,3-Dichlorobenzene	0.5		\$7.00E		A COM			78.Y				532									3. N
1,4-Dichlorobenzene	0.5	mpha.	on a 140000	75.00 · · · · · · · · · · · · · · · · · ·		design of				11 7 7 1 1 17 17 17 17 17 17 17 17 17 17		200 -7 - 20000000	gar, / manga e w	20v 1 304000		Coffinition room 210 12					ł
1,2-Dichlorobenzene	0.5		ر تعقالات		J kill			- 32		. Til Taking v . A				* 3						792.2 ·	
1,2-Dibromo-3-chloropropane	0.5		,,																		
1,2,4-Trichlorobenzene	0.5	ŽŽ.									Exercise 1	e in		Sout	22 000	The supposes	A SECULIAR S	200 - 100 -		25 m	المُعَامِنَةُ المُعَامِنَةِ المُعَامِنِينَ المُعامِنِينَ ال
1,2,3-Trichlorobenzene	0.5											L				1					I

Val - Validity. Refer to Data Qualifiers in Table 1B.

Com - Comments. Refer to the Corresponding Section in the Narrative for each letter.

CRQL - Contract Required Quantitation LImit, N/A - Not Applicable, NA - Not Analyzed

D1, D2, etc. - Field Duplicate Pairs

FB - Field Blank, EB - Equipment Blank, TB - Trip Blank, BG - Background Sample

TABLE 1B

DATA QUALIFIER DEFINITIONS FOR ORGANIC DATA REVIEW

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," February 1994.

- U The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- L Indicates results which fall below the Contract Required Quantitation Limit. Results are estimated and are considered qualitatively acceptable but quantitatively unreliable due to uncertainties in the analytical precision near the limit of detection.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. Y0GP9

Lab Name

Clayton Group Services

Contract <u>68-W-01-046</u>

Lab Code CLAYTN Case No. 30499 Client No.__

SDG No. Y0GP9

Lab Sample ID: 02050973-001A

Date Received:

05/29/2002

Lab File ID:

L1029.D

Date Analyzed: 06/03/2002

Purge Volume: 25

(ML)

Dilution Factor: 1.00

GC Column DB-VRX

ID: <u>0.25</u>

(MM)

Length: <u>60</u>

(M)

Number TICs found:

7

				EST.CONC.	
	<u>CAS NUMBER</u>	COMPOUND NAME	RT	(UG/L)	l Q
01		unknown (4.68)	4.68	3.6	J.
02	1455-13-16	Methanol-d4 (in method blank)	·- 5.52	54	BJN
03	<u> </u>	anknown (8.19) (column bless)	8-19	0.90	J
04	001066-40-6	Silanol, trimethyl	10.02	2.8	NJ
05	0000-00-0	-cis-1,3-Dichloropropene d4 (in method blend	\ 14.77	2.5	BJN
06		runknown (20:37)	20.37	1.0	BJ
07		-unknown (22.27)	22 27	0.80	BJ

SL, 7/16/00.

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

Clayton Group Services

Contract 68-W-01-046

Y0GQ0

Lab Code <u>CLAYTN</u> Case No. 30499 Client No. SDG No. YOGP9

ab Sample ID: 02050973-002A Date Received: 05/29/2002

Gab File ID: <u>L1023.D</u> Date Analyzed: <u>06/03/2002</u>

Purge Volume: 25 (ML) Dilution Factor: 50.00

GC Column DB-VRX ID: 0.25 (MM) Length: 60 (M)

Number TICs found: 5

Lab Name

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (UG/L)	Q
01		unknown (5.29)	5.29	55	J
02	1455-13-16	Methanol-d4 (in met	had blook 5.50	1300	BJN
03	0000-00-0	cis-1,3-Dichloropropene-d4	14.77	130	BJN
04		unknown (20.37)-	20.37	55	BJ
05		unknown (22.27)	-22.27	45	BJ

si, 7/16/02.

EPA SAMPLE NO. Y0GQ1

Lab Name

Clayton Group Services

Contract <u>68-W-01-046</u>

Lab Code

<u>CLAYTN</u>

Case No. <u>30499</u>

Client No___

SDG No.

Y0GP9

Lab Sample ID: 02050973-003A

Date Received:

05/29/2002

Lab File ID:

L1026.D

Date Analyzed:

06/03/2002

Purge Volume: 25

Dilution Factor: 50.00

GC Column DB-VRX

ID: <u>0.25</u>

(MM)

Length: 60

(M)

Number TICs found: 4

(ML)

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (UG/L)	. Q
01 !		unknown (5.31)	5.31	30	J
02	1455-13-16	Methanol-d4 (in method blank	5-53	2500	ВЈМ
03	0000-00-0	cis-1,3-Dichloropropene-d4	14:77	120	BJN
04		unknown (22.28)	22.28	30	; BJ

SL, 7/16/02.

1LCF

EPA SAMPLE NO.

Lab Name

Clayton Group Services

Contract <u>68-W-01-046</u>

Lab Code <u>CLAYTN</u>

Y0GQ2

Case No. 30499 Client No.

SDG No. YOGP9

Lab Sample ID: 02050973-004A

Date Received:

05/29/2002

Lab File ID:

<u>L1084.D</u>

Date Analyzed:

06/07/2002

urge Volume:

<u>25</u>

(ML)

Dilution Factor: 20.00

GC Column DB-VRX

ID: <u>0.25</u> (MM) Length: 60

(M)

Number TICs found: 5

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (UG/L)	Q
01	1	unknown (5.29)	5.29	110	; J
02	1455-13-16	Methanol-d4- (in method Plank	75.50	960	BJN
03	0000-00-0	cis-1,3-Dichloropropene-d4-	14.76	48	BJN
04	000000-00-0	n-Decane-D22	20.37	20	ŊJ
05		un known (22.27)	22.27	14	BJ

SL, 7/16/02

1LCF

EPA SAMPLE NO. Lab Name Clayton Group Services Contract <u>68-W-01-046</u> Y0GO3

Case No. <u>30499</u> Client N._____

Lab Sample ID: 02050973-005A Date Received: 05/29/2002

Lab File ID: <u>L1085.D</u> Date Analyzed: 06/07/2002

Purge Volume: 25 Dilution Factor: 100.00 (ML)

GC Column <u>DB-VRX</u> ID: <u>0.25</u> (MM) Length: 60 (M)

Number TICs found: 5

Lab Code <u>CLAYTN</u>

į	CAS NUMBER	COMPOUND NAME	RT	EST.CONC.	
01	CAS NUMBER	unknown (5.29)	5.29	540	. <u>У</u>
	1.55 42 16	1			
02	1455-13-16	Methanol-d4 (in method blonk)	5.52	4900	BJN
03	0000-00-0	cis-1,3-Diehloropropene-d4	14.75	220	BJN
04		.unknown (20.37)	20.37	90	; BJ
05		unknown (22.27)	22.27	70	BJ

SL, 7/6/02.

SDG No. YOGP9

1LCF

EPA SAMPLE NO. Y0GQ4

Lab Name Clayton Group Services Contract 68-W-01-046

Lab Code

Client N_{'____}

SDG No.

Y0GP9

Lab Sample ID: 02050973-006A

Case No. <u>30499</u> CLAYTN

Date Received:

05/29/2002

Gab File ID:

L1028.D

Date Analyzed:

06/03/2002

ourge Volume:

<u>25</u>

(ML)

Dilution Factor: 500.00

GC Column DB-VRX

ID: <u>0.25</u>

(MM)

Length: 60

(M)

Number TICs found:

				EST.CONC.	
	CAS NUMBER	COMPOUND NAME	RT	(UG/L)	. Q
01		unknown (5.31)	5.31	350	J
02	1455-13-16	Methanol-d4 (in method)	(flink) 5.52	27000	BJN
03	0000-00-0	cis-1,3-Dichloropropene-d4	-14.77	1400	BJN
C 4		unknown (22.27)	, 22.27	350	BJ

54, 7/16/02.

1LCF

Clayton Group Services

Contract 68-W-01-046

Y0GQ5

ab Sample ID: 02050973-012A Date Received: 05/30/2002

Case No. 30499 Client No._____

 Lab File ID:
 L1030.D

 Date Analyzed:
 06/03/2002

Furge Volume: 25 (ML) Dilution Factor: 1.00

3C Column DB-VRX ID: 0.25 (MM) Length: 60 (M)

Number TICs found: 4

CLAYTN

Lab Name

ட்ab Code

				EST.CONC.	
	CAS NUMBER	COMPOUND NAME	RT	(UG/L)	Q
01	1455-13-16	Methanol-d4 (in method blank)	-5.52	51	BJN
02	l	unknown (6.89) Dichlorotri Aluon octhane	6.89	61	J
03	0000-00-0	eis-1,3-Dichloropropene d4 in method Clan	· · · · · · · · · · · · · · · · · · ·	2.6	BJN
04		unknown (22.28)	22.28	0.60	J

54,7/16/02

Y0GP9

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Sample ID: <u>02050973-013A</u> Date Received: <u>05/30/2002</u>

Lab File ID: <u>L1037.D</u> Date Analyzed: <u>06/04/2002</u>

Purge Volume: 25 (ML) Dilution Factor: 1.00

GC Column DB-VRX ID: 0.25 (MM) Length: 60 (M)

umber TICs found: 4

				EST.CONC.	
	CAS NUMBER	COMPOUND NAME	RT	(UG/L)	Q
01	1455-13-16	Methanol-d4 (in mithed blank)	5.52	51	ВЈИ
02		-unknown (10.02) (column bleed)	10.02	0.70	J
03	0000-00-0	cis-1,3-Dichloropropene-d4 (method blond)1 4.77.	2.5	BJN
04		unknown (22.27)	2 2.27	0.60	BJ

SL, 7/6/02

1LCF

Case No. 30499

EPA SAMPLE NO. ab Name Clayton Group Services Contract <u>68-W-01-046</u> Y0GQ7

Client No_____

SDG No.

Date Analyzed:

Y0GP9

06/04/2002

Gab Sample ID: 02050973-014A Date Received: 05/30/2002

5,000.00

Purge Volume: 25 (ML) Dilution Factor:

GC Column DB-VRX ID: <u>0.25</u> (M) (MM) Length: 60

Number TICs found:

CLAYTN

L1038.D

Gab Code

Lab File ID:

EST.CONC. CAS NUMBER COMPOUND NAME RT(UG/L) 5.30 3000 J 01 unknown (5.3) 02 1455-13-16 ·Methanol-d4 5.52 240000 вли (in nethod blan 14.76 BJN 0000-00-0 -eis-1,3-Dichloropropene-d4 12000 03 -unknown (20.37) 5000 ВJ 04 20.37 3500 ВJ 05 unknown (22.27) 22.27

SL, 76/02,

1LCF

EPA SAMPLE NO.

Lab Name <u>Clayton Group Services</u>

Contract <u>68-W-01-046</u>

Y0GQ8

Lab Code <u>CLAYTN</u>

Case No. 30499 Client No._____

SDG No. YOGP9

Lab Sample ID: 02050973-015A

Date Received:

05/30/2002

Lab File ID:

L1039.D

Date Analyzed:

06/04/2002

Purge Volume: 25

Dilution Factor: 1.00

ID: <u>0.25</u>

(MM) Length: <u>60</u>

(M)

GC Column <u>DB-VRX</u> Number TICs found:

(ML)

				EST.CONC.	
	CAS NUMBER	COMPOUND NAME	RT	(UG/L)	Q
01	1455-13-16	Methanold4 (in method blank)	5.52	41	BJN
02		unknown (6.9) Dichlorotrifluoroethane	6.90	0.80	J
03	0000-00-0	cis-1,3-Dichloropropene-d4 (in motherally	nk) 14.77	2.3	BJN
04		un known (20.37)	20.37	0.90	BJ
05		unknown (22:27)	22.27	0.70	BJ

SL, 7/6/02.

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Sab Name Clayton Group Services Contract <u>68-W-01-046</u>

Y0GO9

Lab Sample ID: 02050973-016A

Lab Code <u>CLAYTN</u> Case No. 30499 Client No._____

SDG No. YOGP9

Date Received: 05/31/2002

Lab File ID: <u>L1043.D</u>

Date Analyzed: 06/04/2002

Purge Volume: 25

(ML)

Dilution Factor: 1.00

GC Column <u>DB-VRX</u>

ID: <u>0.25</u> (MM) Length: <u>60</u>

(M)

Number TICs found: 6

				EST.CONC.	1
	CAS NUMBER	COMPOUND NAME	RT	(UG/L)	. 0
01	1455-13-16	Methanold (in method blank)	·5.51	53	ВЈМ
02		unknown (8.17) (colum black)	8.17	1.5	J
03	001066-40-6	Silanol, trimethyl-	10.02	3.5	NJ
04	0000-00-0	eis-1,3-Dichloropropene-dim method llock	14.78	2.4	BJN
05	000000-00-0	n-Decane-D22	20.37	1.0	; NJ
06		unknown (22.27)	22.27	0.80	BJ

SL, 7/16/02.

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

Lab Name

Clayton Group Services

Contract <u>68-W-01-046</u>

Y0GR0

Lab Code <u>CLAYTN</u> Case No. <u>30499</u> Client No.

SDG No. YOGP9

Lab Sample ID: 02050973-017A

Date Received: 05/31/2002

Lab File ID: <u>L1044.D</u>

Date Analyzed: 06/04/2002

Purge Volume: 25

(ML)

Dilution Factor: 2,000.00

C Column DB-VRX

ID: <u>0.25</u> (MM) Length: <u>60</u>

(M)

Number TICs found: 5

				EST.CONC.	
	CAS NUMBER	COMPOUND NAME	RT	(UG/L)	Q
01		unknown (5.29)	5.29	3600	J
02	1455-13-16	Methanol-d4 (in most	not blank 5.50	92000	BJN
03	0000-00-0	cis-1,3-Dichloropropene-d4	1 14.78	4400	BJN
04		unknown (20.37)	20.37	1800	BJ
05		unknown (22.27)	22.27	1400	BJ

SL, 7/16/02.

EPA SAMPLE NO. Y0GR1

Lab Name Clayton Group Services

CLAYTN

Contract <u>68-W-01-046</u>

Lab Code

Case No. 30499

Client N.____

SDG No. Y0GP9

Lab Sample ID: 02050973-018A

Date Received:

05/31/2002

Lab File ID:

Date Analyzed:

06/05/2002

L1057.D

Purge Volume: 25

(ML)

Dilution Factor: 2.50

GC Column DB-VRX

ID: <u>0.25</u> (MM) Length: <u>60</u>

(M)

Number TICs found: 4

i			1	EST.CONC.	i
<u> </u>	CAS NUMBER	COMPOUND NAME	RT	(UG/L)	0
01	1455-13-16	Methanol-d4 (in method blank)	5.52	130	BJN
02	0000-00-0	eis-1,3-Dichloropropene-d4	14.78	. 5.8	BJN
03	000000-00-0	n-Decane-D22	20.37	2.5	NJ
04		unknown (22.27)	22.27	2.0	BJ

SL, 716/02.

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

06/05/2002

Date Analyzed:

Lab Name <u>Clayton Group Services</u> Contract <u>68-W-01-046</u> YOGR2

Lab Code <u>CLAYTN</u> Case No. <u>30499</u> Client N₁ SDG No. <u>Y0GP9</u>

Lab Sample ID: 02050973-019A Date Received: 05/31/2002

Purge Volume: 25 (ML) Dilution Factor: 2.50

GC Column DB-VRX ID: 0.25 (MM) Length: 60 (M)

Number TICs found: 5

L1054.D

Lab File ID:

				EST.CONC.	
	CAS NUMBER	COMPOUND NAME	RT	(UG/L)	· Q
01		unknown (5.29)	5.29	1.3	J
02	1455-13-16	Methanol-d4 (in methych Chambe)	-5-52	120	BJN
03		unknown (7.61)	7.61	2.8	J
04	0000-00-0	cis-1,3-Dichloropropene-d4(1 method els	b) 14.77	6.0	BJN
05	•	-unknown (22.28)	22.28	2.5	BJ

JL, 7/16/02.

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. Y0GR3

Lab Name

Clayton Group Services

Contract 68-W-01-046

Tab Code

CLAYTN

Case No. 30499 Client No....

SDG No. Y0GP9

Tab Sample ID: 02050973-020A

Date Received:

05/31/2002

Lab File ID:

L1058.D

Date Analyzed:

06/05/2002

Purge Volume: 25

Dilution Factor: 20.00

GC Column DB-VRX

ID: <u>0.25</u>

(MM)

Length: 60

(M)

Number TICs found:

(ML)

				EST.CONC.	!
	CAS NUMBER	COMPOUND NAME	E RT	(UG/L)	Q
01	1455-13-16	Methanol-d4 (meel.	od llanh) 5.52	1100	BJN
02	0000-00-0	-cis-1,3-Dichloropropene-d4	14.77	46	BJN
03		-unknown (20.37)	20.37	20	ВJ
04		unknown (22,27)	32.27	. 16	BJ

SL, 7/16/02.

1LCF

Lab Name Clayton Group Services Contract 68-W-01-046
YOGR4

Lab Code <u>CLAYTN</u> Case No. 30499 Client No. SDG No. YOGP9

Lab Sample ID: 02050973-021A Date Received: 05/31/2002

Lab File ID: <u>L1060.D</u> Date Analyzed: <u>06/05/2002</u>

Purge Volume: 25 (ML) Dilution Factor: 1.00

GC Column DB-VRX ID: 0.25 (MM) Length: 60 (M)

Number TICs found: 6

			:	EST.CONC.	
<u> </u>	CAS NUMBER	COMPOUND NAME	RT :	(UG/L)	' Q
01	1455-13-16	Methanol-d4 (in method blank)	-5-52	52	BJN
02 :		unknown (6.85) Dichloro Xfluoroe thank	6.85	1.6	J
03	· · · · · · · · · · · · · · · · · · ·	-unknown (10.02) (when these)	10.02	0.50	J
04	0000-00-0	cis-1,3-Dichloropropene-d4 (in method blank) 14.78	2.4	BJN
05 .		unknown (20.37)	2 0.37	1.0	BJ
06		unknown (22.27)	22.27	0.70	BJ

54 7/16/02

' 1LCF

EPA SAMPLE NO.

 Lab Name
 Clayton Group Services
 Contract 68-W-01-046
 YOGR5

 Lab Code
 CLAYTN
 Case No. 30499
 Client N. SDG No. YOGP9

tab code <u>chain</u> case No. 30499 Cilent No. 100F9

Lab Sample ID: 02050973-022A Date Received: 06/01/2002

mab File ID: <u>L1062.D</u> Date Analyzed: <u>06/05/2002</u>

Purge Volume: 25 (ML) Dilution Factor: 1.00

GC Column DB-VRX ID: 0.25 (MM) Length: 60 (M)

Number TICs found: 5

	1				EST.CONC.	
	i··	CAS NUMBER	COMPOUND NAME	RT	(UG/L)	: Q
01	:	1455-13-16	Methanol-d4 (in method blank)	5.52	53	BJN
02			unknown (8.18) (when I feed)	8.18	1.4	J
03		001066-40-6	Silanol, trimethyl-	10.01	3.0	NJ
04	:	0000-00-0	cis-1,3-Dichloropropene-d4 (in method flow	6) 14.7 7	2.4	BJN
05			unknown (22:27)-	22.27	0.60	BJ

5L, 7/16/02.

1LCF

EPA SAMPLE NO. YOGR6

iab Name Clayton Group Services

CLAYTN

Contract <u>68-W-01-046</u>

Lab Code

Case No. 30499

Client No______

Y0GP9 SDG No.

Lab Sample ID: 02050973-023A

Date Received:

06/01/2002

Lab File ID:

L1073.D

Date Analyzed: 06/06/2002

Purge Volume:

25

Dilution Factor: 200.00

GC Column DB-VRX

ID: <u>0.25</u>

(MM)

Length: <u>60</u>

(M)

Number TICs found:

<u>5</u>

(ML)

	CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (UG/L)	0
01		unknown (5.29)	5.29	220	J
02	1455-13-16	-Methanol-d4 (in method lamb)	5-52	10000	BJN
03	0000-00-0	eis-1,3-Dichloropropene-d4	14.75	440	BJN
04		unknown (20:37)	20.37	200	: BJ
05		unknown (22.27)	22.27	140	BJ

SL, 7/16/02.

LOW CONCENTRATION WATER VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

 Lab Name
 Clayton Group Services
 Contract 68-W-01-046
 Y0GR7

 Lab Code
 CLAYTN
 Case No. 30499
 Client No. SDG No. Y0GP9

Lab Sample ID: 02050973-024A Date Received: 06/01/2002

Lab File ID: <u>L1074.D</u> Date Analyzed: <u>06/06/2002</u>

Purge Volume: 25 (ML) Dilution Factor: 100.00

GC Column DB-VRX ID: 0.25 (MM) Length: 60 (M)

Tumber TICs found: 4

				EST.CONC.	
	CAS NUMBER	COMPOUND NAME	RT	(UG/L)	, O
01		unknown (5.29)	5.29	110	J
02	1455-13-16	Methanol-d4 (in method blank	5-53	5400	BJN
03	0000-00-0	eis-1,3-Dichloropropene-d4	14.77	240	BJN
04		unknown (22.27)	22.27	60	BJ

51-, 7/16/02.

1LCF

ID: 0.25

EPA SAMPLE NO.

∴ab Name Clayton Group Services Contract <u>68-W-01-046</u>

Y0GR8

SDG No. YOGP9

Lab Code <u>CLAYTN</u> Case No. 30499 Client No.

06/01/2002

Lab Sample ID: 02050973-025A

Lab File ID: <u>L1063.D</u>

Date Analyzed:

Date Received:

06/05/2002

Purge Volume: 25

(ML)

Dilution Factor: 1.00

GC Column <u>DB-VRX</u>

(MM)

Length: 60 (M)

Number TICs found: 8

		[EST.CONC.	1
	CAS NUMBER	COMPOUND NAME	RT	(UG/L)	<u> </u>
01	1455-13-16	Methanot-d4 (in method Polante)	5.52	50	BJN
02		unknown (5.94)	5.94	1.0	J
03	000354-23-4	Ethane, 1,2-dichloro-1,1,2-trifluoro-	6.90	. 17	NJ
04	000076-12-0	Ethane, 1,1,2,2-tetrachloro-1,2-difluoro	12.72	1.5	NJ
05	0000-00-0	cis-1,3-Dichloropropene-d4 (in melhod blank	\14.78	2.3	BJN
06		¹unknown (20.37) ↓	20.37	0.90	BJ
07	000135-98-8	Benzene, (1-methylpropyl)-	21.73	0.60	NJ
80		-unknown (22.27) (in method blank)	22.27	0.80	BJ

SL, 7/16/02

Lab Name: Clayton Group Services (CLAYTN)

Case No.: 30499

SDG No.: Y0GP9

Contract No.: 68-W-01-046

Clayton Work Order No.: 2050973

Tentatively Identified Alkanes of Volatiles Analysis

EPA Sample No.	n-Alkane	Branched Alkane	Cyclic Alkane (ug/L)
El A Sample No.	(ug/L)	(ug/L)	
	(45/2)	(us/L)	(us/ 2)
Y0GP9	0	0	0
Y0GQ0	0	0	0
Y0GQ1	0	0	0
Y0GQ2	0	0	0
Y0GQ3	0	0	0
Y0GQ4	0	0	0
Y0GQ5	0	0	0
Y0GQ5DL	0	0	0
Y0GQ6	0	. 0	0
Y0GQ7	0	. 0	0
Y0GQ8	. 0	0	0
Y0GQ8DL	0	0	0
Y0GQ9	0	0	0
Y0GR0	0	0	0
Y0GR1	0	. 0	0
Y0GR2	1	0	0
Y0GR2MS			
Y0GR2MSD ·			
Y0GR3	0	0	0
Y0GR4	0	0	0
Y0GR5	0	0	0
Y0GR6	0	0	0
Y0GR7	0	0	0
Y0GR8	0	7	0
Y0GR8DL	0	0	0
/BLKLA	0	0	0
/BLKLB	0	0	0
/BLKLC	0	0	0
/BLKLY	0	0	0
/BLKLZ	0	0	Ō
/HBLKLA	0	0	0
/IBLKLA	0	0	0

In Reference to Case No. 30499, SDG No. YOGP9 and YOGR9

Contract Laboratory program REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call: July 16, 2002
Laboratory Name: <u>Clayton Laboratory Services</u>
Lab Contact: Karen Coonan
Region: 9
Regional Contact:Steve Remaley, CLP PO
ESAT Reviewer: <u>Santiago Lee, ESAT/Laboratory Data Consultants</u>
Call Initiated By: Laboratory X Region
In reference to data for the following sample(s): SDG No.: YOGP9 and YOGR9 (Volatiles)
Summary of Questions/issues Discussed:
The following items were noted during the review of this sample delivery group (SDG). Please respond within 7 days as specified in Section 2.2 of Exhibit B of the OLM04.2 Statement of Work (SOW). Send response and resubmissions to ICF Consulting/Laboratory Data Consultants, Environmental Services Assistance Team, Region 9, 1337 S. 46th Street, Building 201, Richmond, CA 94804, FAX 510-412-2304.
1. In order to fully validate the data packages, Region 9 requests the following information for all standards (calibration and QC): expiration date of standard, preparation date, lot number, standard sources, concentration and volume of spiking and LCS Solutions. Please provide the above listed data.
Summary of Resolution: To be determined.
Regional Contact Signature Date of Resolution
Distribution: (original)ESAT; (1)Lab copy, (2)Regional Copy, (3)CLASS copy